

In The
United States Court of Appeals
For The Federal Circuit

IN RE MICRON TECHNOLOGY, INC.

**APPEAL FROM THE UNITED STATES
PATENT AND TRADEMARK OFFICE,
BOARD OF PATENT APPEALS AND INTERFERENCES.**

REPLY BRIEF OF APPELLANT

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APPEAL NO. 2006-1230

APPELLANT'S REPLY BRIEF

I. IT IS IMPOSSIBLE FOR MORISHITA'S GAIN TO EQUAL ONE

The solicitor, somewhat cleverly, reverses the order of argument from that presented in Micron's opening brief. Rather than discuss the unity gain limitation of claim 223 at the outset, the solicitor relegates that argument to the latter portion of his brief. That is understandable as it is on this point, whether Morishita discloses a unity gain amplifier, that the Office's interpretation of Morishita is not only unreasonable, it is impossible.

The solicitor states on page 21 of his brief that Morishita's gain is one. Then, on page 22 the solicitor argues that nominal differences between the output voltage and the input voltage do not signify a lack of unity gain. As an example, on page 23 of the solicitor's brief, the solicitor states:

For example, suppose that the reference voltage V_{ref} = 12.0 volts. If the internal voltage INV_{cc} drops to 11.9 volts, then more current is delivered through the transistor DT until the internal voltage INV_{cc} increases to 12.0 volts.

It is physically impossible for a voltage of 11.9 volts to be multiplied by unity and produce a 12.0 volt output. Let me say that again - it is physically impossible for a voltage of 11.9 volts to be multiplied by unity and produce a 12.0 volt output. For a voltage of 11.9 volts to be increased to 12.0 volts, it must be multiplied by a number larger than one. The math is immutable; the math is not subject to interpretation; $(11.9 \text{ volts}) \times 1 = (11.9 \text{ volts})$, it will never equal 12 volts.

The solicitor's example goes on:

Similarly, if the internal voltage INV_{cc} increases to 12.1 volts, then less current passes through the transistor DT until internal voltage INV_{cc} decreases to 12.0 volts.

It is simply impossible for 12.1 volts to be multiplied by unity and produce a 12 volt output. For 12.1 volts to be reduced to 12.0 volts, it must be multiplied by a number smaller than unity. Thus, the gain of Morishita must be variable -- sometimes larger than unity to boost the voltage and sometimes smaller than unity to reduce the voltage. That is what Morishita means when he states that INV_{cc} is "maintained at the V_{ref} level." It does not mean, as the solicitor argues, that INV_{cc} equals V_{ref} . See Solicitor's brief at page 18.

The solicitor attempts to extract the Office from this impossible situation by stating on page 23 of his brief:

Since the variation is small, a person of ordinary skill in the art would deem the internal voltage INV_{cc} to be effectively equal to the reference voltage V_{ref} .

Therefore, the small changes do not alter the Board's conclusion that the amplifier is a unity gain amplifier.

The problem with the solicitor's position is two-fold. First, as a practical matter, a person of ordinary skill in the art could not deem the internal voltage to be effectively equal to the reference voltage because if the internal voltage drops to 11.9 volts, and is then multiplied by 1, the voltage remains at 11.9 volts. The next time the voltage drops to, say 11.8 volts, the 11.8 volts is multiplied by 1 and the voltage remains at 11.8 volts. Eventually, the voltage will drop so low that the circuit no longer functions. We know, however, that that is not what happens.

Secondly, the solicitor's statement that a person of ordinary skill in the art would deem the internal voltage to be effectively equal to the reference voltage is mere speculation, unsupported by any evidence, and contrary to the way in which the circuit operates.

Because 11.9 volts times unity is not 12 volts, that alone is a sufficient basis for this Court to conclude that the Office's interpretation of Morishita is not only unreasonable, but impossible.

II. THE FACT THAT MORISHITA DOES NOT REFER TO A UNITY GAIN AMPLIFIER IS NOT MERE SEMANTICS

The solicitor deals with the fact that Morishita never calls the circuitry identified by the Office a unity gain amplifier as a matter of mere semantics. Because one of ordinary skill in the art would be well aware of the phrase "unity gain amplifier" at the time Morishita was filed, had Morishita meant to incorporate a unity gain amplifier into his disclosure, he would have referred to it as such. The fact that Morishita does not call the components cited by the Office a "unity gain amplifier" provides support for Micron's argument that Morishita does not disclose a unity gain amplifier. Morishita does not call the components cited by the Office a unity gain amplifier because they are not. See section I, *supra*.

Although patents are obviously different from contracts, their common features make the rules for the construction of contracts applicable to patents.

Doble Eng'g Co. v. Leeds & Northrup Co., 134 F.2d 78, 84 (1st Cir. 1943); *see also* *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995)

(acknowledging that an analogy to a contract may be appropriate in some circumstances). In cases involving the construction of contracts, courts will look to the plain language of the contract first to determine the meaning. *McAbee Constr. Inc. v. United States*, 97 F.3d 1431, 1435 (Fed. Cir. 1996). Referring to Figure 17 of Morishita as a "unity gain amplifier" is equivalent to rewriting the patent and improperly inserting words Morishita never used. Courts will not add

new information to a contract. *George Hyman Constr. Co. v. United States*, 832 F.2d 574, 581 (Fed. Cir. 1987).

The general rules applicable to the construction of written instruments are applicable to patents. See *Markman, supra*, at 978. When interpreting, for example, a statute, courts will first look to the language of the statute to determine the meaning. *Flowers v. Sec'y of the Dep't of Health and Human Servs.*, 49 F.3d 1558, 1560 (Fed. Cir. 1995). One of the standard canons of statutory construction prohibits adding new words when the legislature competently omitted them. *Atchison, Topeka, & Sante Fe Ry. Co. v. Arizona*, 78 F.3d 438, 445 (9th Cir. 1996). If the legislature thoroughly considered the subject at issue, a court will presume that the statute includes all necessary language. *Id.* In this case, the phrase “unity gain amplifier” is well known in the art. Therefore, Morishita would have been aware of the structure of a unity gain amplifier and would have included the phrase in his disclosure had the invention included a unity gain amplifier. Describing the inner workings of a unity gain amplifier without using the phrase would be overly time-consuming and unnecessary. Because Morishita does not contain the phrase, a court should not insert it.

III. SUBSTANTIALLY IDENTICAL IS NOT THE CORRECT STANDARD

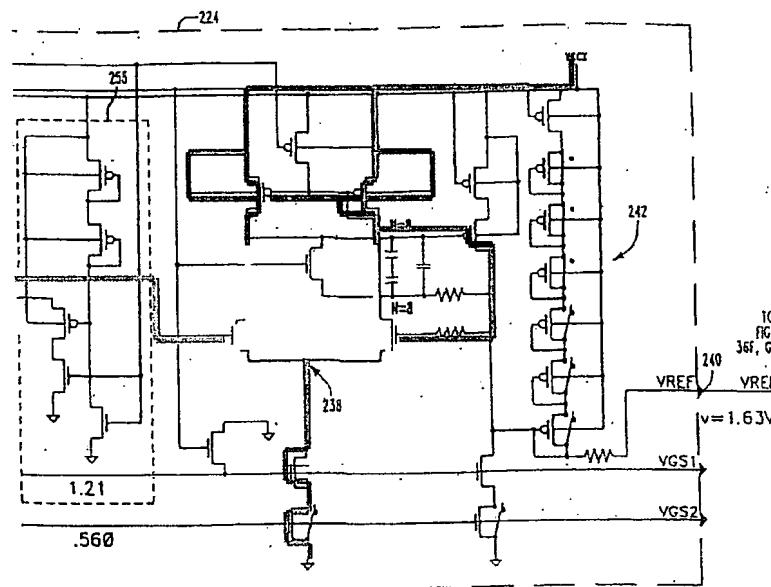
On page 20 of the solicitor’s brief, the solicitor argues that “when the USPTO shows that a prior art invention is substantially identical to the claimed

invention, the burden shifts to the applicant to show novelty. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). *In re Oetiker* does not stand for that proposition. *Oetiker* is a case involving obviousness, not anticipation. *Oetiker* stands for the proposition that the Office has the burden of establishing a *prima facie* case, and upon establishing a *prima facie* case, the burden shifts to the applicant.

The primary issue in the present case is whether claim 223 is anticipated by Morishita, and that issue turns in part on the question of whether Morishita discloses a unity gain amplifier. For anticipation, there must be no difference between the claimed invention and the reference. *Scripps Clinic & Res. Found v Genetech, Inc.* 927 F. 2d 1565 (Fed. Cir 1991). For the solicitor to argue, as he does on page 20 of his brief, that the circuitry of Morishita is “substantially identical” to the claimed invention is to admit that there are differences between the claimed invention and the reference. In the face of such an admission, the Board’s § 102 rejection cannot be reasonable.

Even if the “substantially identical” standard is applicable to this case, an examination of the figure reproduced below demonstrates that the two circuits are not substantially identical as shown by virtue of all of the components shaded in yellow which are found in the Micron circuit but not in Morishita.

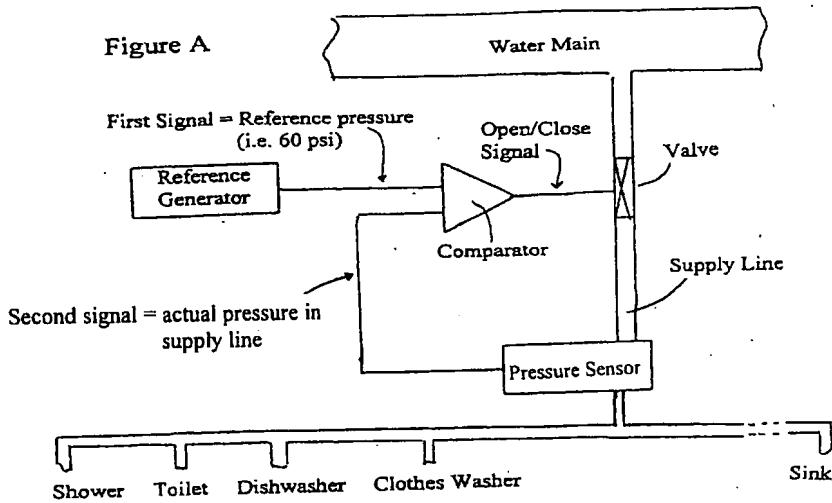
MICRON FIGS. 36A1, 36A2, 36A3



The “substantially identical” argument made by the solicitor has no place in this case other than to serve as an admission of a lack of identity between what is claimed and what is disclosed in Morishita.

IV. MICRON’S WATER TANK HYPOTHETICAL IS SPOT ON

In response to the solicitor’s arguments appearing on pages 23 and 24 of his brief, a modified analogy appears below in which the storage tank has been eliminated and replaced by a pressure sensor in the supply line. That change in no way affects the basic argument, which centers around the comparator and the valve, not the water tank.



Assume that the pressure in the supply line falls below 60 psi (e.g., 57 psi)

due to one of the appliances being turned on. Common sense tells us that the gain must be more than unity if the pressure is to return to 60 psi, just as the gain in Morishita must be more than unity if a voltage of 11.9 is to be boosted to 12 volts.

See section I, supra. If the gain is unity, the water pressure will remain at 57 psi and never return to 60 psi, just as the voltage in Morishita cannot return to 12 volts from 11.9 volts if 11.9 volts is multiplied by one.

V. MORISHITA DOES NOT DISCLOSE A REFERENCE SIGNAL THAT HAS *BOTH* A DESIRED RELATIONSHIP WITH AN EXTERNAL SIGNAL AND IS DEPENDENT UPON THE EXTERNAL SIGNAL

The solicitor, like the Board, focuses on the "desired relationship" language noting that it is very broad, has not been subject to any limitations, etc. However, the "desired relationship" language must be considered in conjunction with the

language that states that the reference signal is “dependent upon” the external voltage. By focusing on these individually, rather than together, the Office effectively collapses both of these limitations into a single limitation.

The solicitor states on page 12 of his brief that the “desired relationship between the two voltages is clear -- dependence until external voltage EXVcc reaches a certain voltage, after which, independence.” For the sake of this discussion, let us accept that definition of “desired relationship.” What then is left for the meaning of “said reference signal is dependent upon said external voltage”? The solicitor, in the sentence bridging pages 15 and 16 of his brief, states that “the ‘dependent upon’ limitation occurs when the external voltage EXVcc is between zero volts and a predetermined voltage.” However, that is the same language that the Office relies upon (“dependence until external voltage EXVcc reaches a certain”) in satisfying the “desired relationship” limitation. That portion of the voltage profile between zero volts and a predetermined voltage cannot satisfy both the “predetermined relationship” and the “dependent upon” limitations. The Board’s construction of Morishita so as to meet the “desired relationship” and “dependent upon” limitations in claim 223 is unreasonable and should be reversed.

VI. CONCLUSIONS

It is believed that section I of this brief clearly demonstrates that the Office’s interpretation of Morishita is impossible and therefore unreasonable. It is Micron’s

position that, for that reason alone, the Board's decision must be reversed. However, Micron has addressed the other issues raised by the solicitor, specifically the question of semantics, the solicitor's "substantially identical" argument, and the solicitor's remarks concerning Micron's analogy. These subsidiary issues are all dealt with and, in any event, cannot change the fact that 11.9 volts times 1 cannot equal 12.0 volts.

On the issue of the Board's construction of Morishita so as to meet the two separate and distinct limitations in claim 223, that construction is unreasonable and should be reversed.

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Respectfully submitted,



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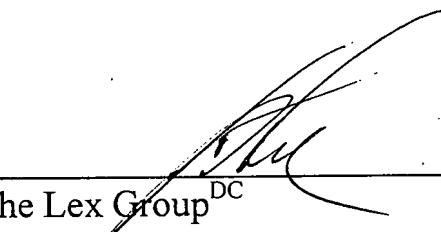
I hereby certify that on this 18th day of August, 2006, two bound copies of the foregoing Reply Brief of Appellant were served via U.S. Mail, postage prepaid, to the following:

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I also certify that on this 18th day of August, 2006, the required number of copies of the foregoing Reply Brief of Appellant were hand filed at the Office of the Clerk, United States Court of Appeals for the Federal Circuit.

Filing and service were performed under instruction of counsel.



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